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USSR: PROMOTING PLUTONIUM PRODUCTION BAN BY MEANS  
OF THREATS

A GENERAL STAFF OFFICIAL RECENTLY TOLD A US  
DELEGATION THAT, UNLESS A US-SOVIET PLUTONIUM  
PRODUCTION BAN IS NEGOTIATED, THE SOVIETS WILL  
BUILD FACILITIES THAT CAN PRODUCE PLUTONIUM BY  
LASER ISOTOPE SEPARATION. THIS IS THE FIRST TIME  
THE SOVIETS HAVE LINKED POSSIBLE US FAILURE TO  
RESPOND TO A BAN INITIATIVE TO THEIR CONSTRUCTION  
OF NEW PRODUCTION CAPACITY.

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2. USSR: PROMOTING PLUTONIUM PRODUCTION BAN BY  
MEANS OF THREATS

[REDACTED] THE SOVIETS EXPECT TO HALT THEIR PRODUCTION OF PLUTONIUM BY 1995. [REDACTED] ADDED THAT THE SOVIETS WOULD LIKE TO NEGOTIATE A BAN ON PLUTONIUM PRODUCTION TO AVOID THE NECESSITY OF BUILDING NEW FACILITIES FOR PRODUCING PLUTONIUM USING THE "LASER TECHNIQUE" THAT THE UNITED STATES HAS DEVELOPED. [REDACTED]

COMMENT:

[REDACTED] STATEMENT IS THE FIRST INDICATION THAT FAILURE OF THE UNITED STATES TO RESPOND TO THE SOVIET INITIATIVE FOR A FISSIONABLE MATERIALS BAN COULD LEAD THE SOVIETS TO CONSTRUCT ADDITIONAL PLUTONIUM PRODUCTION CAPACITY. LAST YEAR, THE SOVIETS ANNOUNCED PLANS TO PHASE OUT ALL PLUTONIUM PRODUCTION REACTORS DURING THE 1990S, RETAINING ONLY TWO OR THREE TRITIUM PRODUCTION REACTORS. THIS PLAN HAS PREVIOUSLY NOT BEEN LINKED TO ANY ARMS CONTROL AGREEMENT, EVEN THOUGH THE SOVIETS HAVE FOR SEVERAL YEARS BEEN ADVOCATING A BAN ON THE PRODUCTION OF FISSIONABLE MATERIAL. [REDACTED]

THE SOVIETS ARE EXPERIENCED IN BOTH LASER ISOTOPE SEPARATION (LIS) AND CENTRIFUGE TECHNIQUES, ALTHOUGH THE EXTENT OF THEIR EXPERIENCE WITH PLUTONIUM ISOTOPE SEPARATION IS UNKNOWN. WE DO NOT BELIEVE, HOWEVER, THAT THE SOVIETS ARE READY TO BEGIN CONSTRUCTION OF A LIS-BASED PLANT FOR PLUTONIUM ISOTOPE SEPARATION. WE HAVE NO EVIDENCE THAT THEY HAVE DEVELOPED THE TECHNOLOGY AND EQUIPMENT NEEDED FOR THE SEPARATION MODULES FOR A FULL-SCALE PLANT. NOR HAD THEY ANY INCENTIVE TO DEVELOP SUCH EQUIPMENT UNTIL VERY RECENTLY, AS DEDICATED MILITARY REACTORS MEET THEIR NEEDS FOR WEAPONS-GRADE PLUTONIUM, AND THE PLUTONIUM RECOVERED FROM POWER REACTORS WAS ALLOCATED TO THE NOW-FALTERING BREEDER PROGRAM. A SOVIET DECISION TO PROCEED WITH LIS FOR PLUTONIUM PRODUCTION WOULD BEGIN WITH

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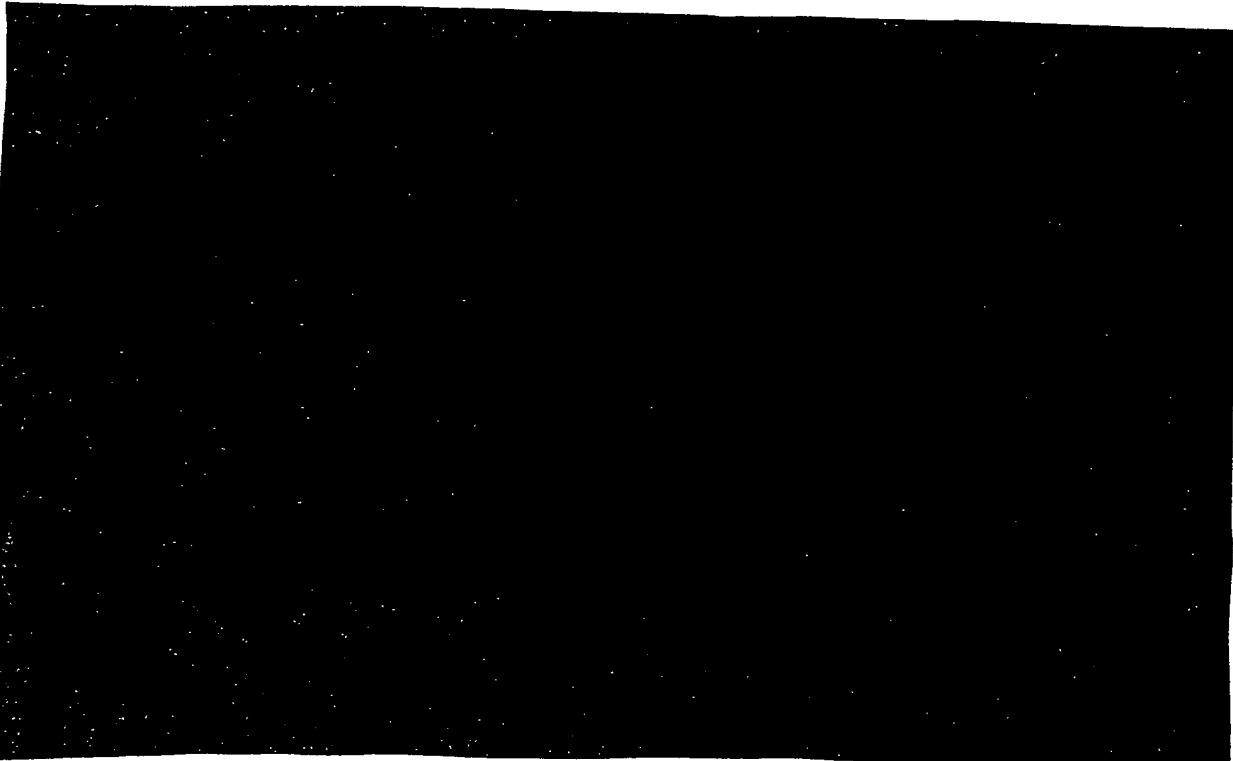
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RESEARCH AND ENGINEERING, NOT FACILITY CONSTRUCTION. IN  
CONTRAST, A PLUTONIUM ISOTOPE SEPARATION PLANT USING THE

/\*\*\*\*\* BEGINNING OF SECTION 004 \*\*\*\*\*/  
CENTRIFUGE PROCESS PROBABLY COULD BE CONSTRUCTED RELATIVELY  
RAPIDLY. [REDACTED]

ALTHOUGH WE HAVE NO EVIDENCE THAT THE SOVIETS ARE PRODUCING  
WEAPONS-GRADE PLUTONIUM USING ISOTOPIC ENRICHMENT, THE USSR  
HAS RECOVERED SIGNIFICANT AMOUNTS OF POTENTIAL SOURCE  
MATERIAL--REACTOR-GRADE PLUTONIUM FROM REPROCESSED POWER  
REACTOR FUEL. THIS PLUTONIUM HAS LARGE AMOUNTS OF THE HEAVIER  
PLUTONIUM ISOTOPES, MAKING IT POORLY SUITED FOR USE IN  
WEAPONS ALTHOUGH SATISFACTORY FOR ITS INTENDED USE IN THE  
SOVIET BREEDER REACTOR PROGRAM. ALTHOUGH REACTOR FUEL  
REPROCESSING BEGAN IN THE LATE 1970S, THE SOVIET BREEDER  
PROGRAM HAS SLOWED TO A HALT SINCE 1988, LEAVING A LARGE  
INVENTORY OF RECOVERED REACTOR-GRADE PLUTONIUM WITH NO  
APPARENT USE. WE ESTIMATE THAT THE SOVIETS HAVE RECOVERED  
ABOUT 20 TONS OF REACTOR-GRADE PLUTONIUM, WHICH COULD BE  
UPGRADED THROUGH LIS OR CENTRIFUGE TECHNIQUES TO YIELD 14  
TONS OF WEAPONS-GRADE PLUTONIUM, INCREASING THEIR TOTAL  
WEAPONS-GRADE INVENTORY BY ABOUT 10 PERCENT. SOVIET  
REPROCESSING CAPACITY COULD PROVIDE AN ADDITIONAL 2 TO 3 TONS  
OF REACTOR-GRADE PLUTONIUM PER YEAR, WHICH COULD YIELD 1.4 -0  
2.1 TONS OF WEAPONS-GRADE PLUTONIUM PER YEAR. [REDACTED]



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